

**ES Practice Test****Matching- Vocabulary**

**Directions:** Use the vocabulary words by matching it to the BEST definition or description. There will not be any repeats.

- |                           |                         |
|---------------------------|-------------------------|
| a. Line Segment           | n. Right Angle          |
| b. Ray                    | o. Obtuse Angle         |
| c. Parallel               | p. Acute Angle          |
| d. Perpendicular          | q. Angle Bisector       |
| e. Angle                  | r. Adjacent Angles      |
| f. Polygon                | s. Linear Pair          |
| g. Vertex                 | t. Supplementary Angles |
| h. Collinear              | u. Complementary Angles |
| i. Coplanar               | v. Vertical Angles      |
| j. Congruent              | w. Scalene Triangle     |
| k. Midpoint               | x. Isosceles Triangle   |
| l. Segment Bisector       | y. Equilateral Triangle |
| m. Perpendicular Bisector | z. Acute Triangle       |

- \_\_\_ 1. An angle whose measure is greater than  $90^\circ$
- \_\_\_ 2. A closed figure, created by segments, whose "corners" we call vertices- when naming these, order matters.
- \_\_\_ 3. The point on a segment that divides the segment into two congruent segments
- \_\_\_ 4. The sum of the measures of two angles is  $90^\circ$
- \_\_\_ 5. An angle whose measure is less than  $90^\circ$
- \_\_\_ 6. Lines, segments or rays which never intersect
- \_\_\_ 7. Created by two (non-collinear) rays which share a common endpoint called a vertex
- \_\_\_ 8. The sum of the measures of two angles is  $180^\circ$
- \_\_\_ 9. Points which lie on the same line
- \_\_\_ 10. An angle with the measure of exactly  $90^\circ$
- \_\_\_ 11. Must be written with the endpoint on the left and point to the right
- \_\_\_ 12. Ray, segment, line or plane which cuts a segment into two  $\cong$  parts

**Multiple Choice**

Identify the choice that best completes the statement or answers the question.

Write the point-slope form of an equation for a line that passes through the point with the given slope.

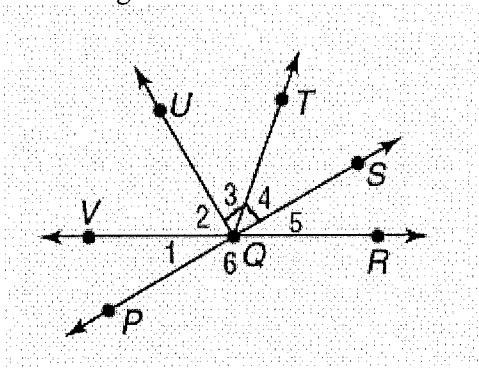
- \_\_\_\_\_ 13.  $(-4, 3), m = 1$
- a.  $y - 3 = -(x + 4)$
  - b.  $y - 3 = 1(x + 4)$
  - c.  $y - 3 = 1(x - 4)$
  - d.  $y + 3 = 1(x + 4)$

Not on test

Solve each proportion.

- \_\_\_\_\_ 14.  $\frac{x+1}{x-1} = \frac{14}{20}$
- a.  $\frac{17}{3}$
  - b.  $\frac{7}{10}$
  - c.  $-\frac{3}{17}$
  - d.  $\frac{10}{7}$

Use the figure below:



- \_\_\_\_\_ 15.  $\angle PQT$  and  $\angle TQS$  are \_\_\_\_\_.
- a. Congruent Angles
  - b. Vertical Angles
  - c. A Linear Pair
  - d. Complementary Angles
- \_\_\_\_\_ 16.  $\angle 1$  and  $\angle 5$  are \_\_\_\_\_.
- a. Supplementary Angles
  - b. A Linear Pair
  - c. Vertical Angles
  - d. Complementary Angles
- \_\_\_\_\_ 17.  $\angle 3$  and  $\angle 4$  are \_\_\_\_\_.
- a. Vertical Angles
  - b. Supplementary Angles
  - c. Congruent Angles
  - d. Complementary Angles

Simplify. Assume that no denominator is equal to zero.

\_\_\_\_\_ 18.  $\left(\frac{3a}{a^2}\right)^{-2}$

a.  $\frac{1}{9a^2}$

b.  $\frac{a^2}{-9}$

c.  $\frac{a^2}{9}$

d.  $\frac{9}{a^2}$

\_\_\_\_\_ 19.  $(3g^3h^4)^3$

a.  $9g^6h^7$

b.  $9g^9h^{12}$

c.  $27g^6h^7$

d.  $27g^9h^{12}$

\_\_\_\_\_ 20.  $\frac{(2a^6b)^2}{32b^6}$

a.  $\frac{a^{12}}{8b^4}$

b.  $\frac{a^{12}}{16b^4}$

c.  $\frac{a^{12}b^4}{8}$

d.  $\frac{a^8}{8b^4}$

Write the slope-intercept form of an equation that passes through the given point and is perpendicular to the graph of the equation.

\_\_\_\_\_ 21.  $(-5, 3)$ ,  $5x - 5y = -5$

a.  $y = x - 2$

b.  $y = x - \frac{20}{3}$

c.  $y = -x - 2$

d.  $y = 8x - 1$

Simplify the expression completely.

\_\_\_\_\_ 22.  $\sqrt{147}$

a.  $3\sqrt{49}$

b.  $12.1244$

c.  $49\sqrt{3}$

d.  $7\sqrt{3}$

\_\_\_\_\_ 23.  $\sqrt{5200}$

a.  $10\sqrt{13}$

b.  $72$

c.  $20\sqrt{13}$

d.  $10\sqrt{52}$

*Solve the equation.*

- \_\_\_ 24. Factor out your GCF first, then continue to factor your polynomial.

$$15x^2 - 17x + 4 = 0$$

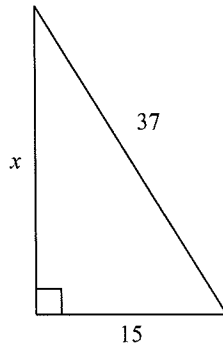
a.  $\left\{\frac{4}{5}, \frac{1}{3}\right\}$

c.  $\{5, 12\}$

b.  $\left\{4, \frac{5}{3}\right\}$

d.  $\{-5, -12\}$

- \_\_\_ 25. Find  $x$ .



a.  $2\sqrt{286}$

c. 1144

b.  $\sqrt{1594}$

d. 22

*Solve the system of equations.*

- \_\_\_ 26.  $-9 = x - 3y$

$$-2x + 6 = 6y$$

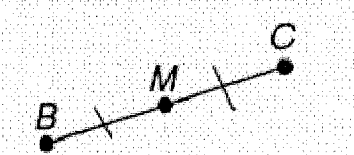
a.  $(-3, 2)$

c.  $(3, 4)$

b. infinitely many solutions

d.  $(-9, 0)$

- \_\_\_ 27. Choose the concept which best describes this geometric picture



a. Congruent Angles

d. Supplementary Angles

b. Midpoint of a line segment

e. Perpendicular Lines

c. Complementary Angles

*Write an equation of the line that passes through each point with the given slope.*

- \_\_\_ 28.  $(-3, -4), m = 3$

a.  $y = -3x + 5$

c.  $y = 3x + 13$

b.  $y = 3x + 5$

d.  $y = 3x - 5$

Solve the trinomial equation.

29.  $k^2 + 8k = 84$
- |                 |                 |
|-----------------|-----------------|
| a. $\{-12, 4\}$ | c. $\{-14, 6\}$ |
| b. $\{14, -6\}$ | d. $\{-12, 7\}$ |

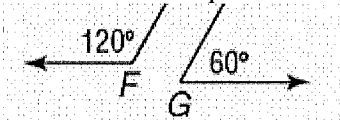
Write the slope-intercept form of an equation of the line that passes through the given point and is parallel to the graph of the equation.

30.  $(5, -1), y = -\frac{3}{4}x + 1$
- |                                       |
|---------------------------------------|
| a. $y = -\frac{3}{4}x - \frac{11}{4}$ |
| b. $y = -\frac{3}{4}x + \frac{11}{4}$ |
| c. $y = \frac{11}{4}x + \frac{3}{4}$  |
| d. $y = \frac{4}{3}x + \frac{11}{5}$  |

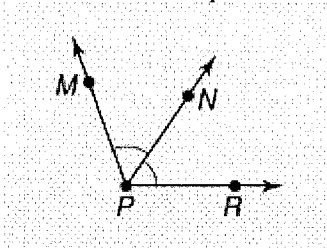
Write an equation of the line that passes through the pair of points.

31.  $(-5, 8), (-3, -8)$
- |                   |                   |
|-------------------|-------------------|
| a. $y = -8x - 32$ | c. $y = 8x - 32$  |
| b. $y = -8x + 22$ | d. $y = -8x + 32$ |

32. Choose the concept which best describes this geometric picture



- |                         |                               |
|-------------------------|-------------------------------|
| a. Supplementary Angles | d. Congruent Angles           |
| b. Perpendicular Lines  | e. Midpoint of a line segment |
| c. Complementary Angles |                               |
33. Choose the concept which best describes this geometric picture

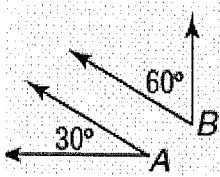


- |                         |                               |
|-------------------------|-------------------------------|
| a. Complementary Angles | d. Congruent Angles           |
| b. Perpendicular Lines  | e. Midpoint of a line segment |
| c. Supplementary Angles |                               |

Name: \_\_\_\_\_

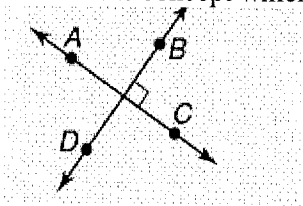
ID: P

\_\_\_ 34. Choose the concept which best describes this geometric picture



- a. Complementary Angles
- b. Midpoint of a line segment
- c. Congruent Angles
- d. Supplementary Angles
- e. Perpendicular Lines

\_\_\_ 35. Choose the concept which best describes this geometric picture

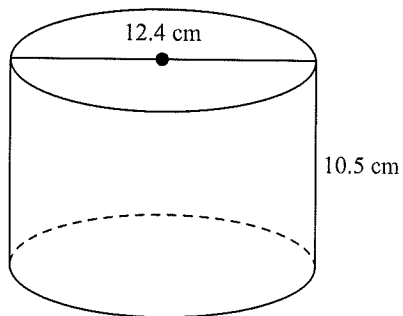


- a. Complementary Angles
- b. Congruent Angles
- c. Supplementary Angles
- d. Midpoint of a line segment
- e. Perpendicular Lines

*Find the surface area of the cylinder. Use 3.14 for pi and round your answer to the nearest tenth.*

*Surface Area of a cylinder can be found by using the formula:  $SA=2\pi r^2 + 2\pi rl$*

\_\_\_ 36.



- a.  $695.0 \text{ cm}^2$
- b.  $704.7 \text{ cm}^2$
- c.  $408.8 \text{ cm}^2$
- d.  $650.2 \text{ cm}^2$

**ES Practice Test  
Answer Section**

**MATCHING**

1. O
2. F
3. K
4. U
5. P
6. C
7. E
8. T
9. H
10. N
11. B
12. L

**MULTIPLE CHOICE**

13. B
14. A
15. C
16. C
17. D
18. C
19. D
20. A
21. C
22. D
23. C
24. A
25. A
26. A
27. B
28. B
29. C
30. B
31. A
32. A
33. D
34. A
35. E
36. D